

### **REMARKS**

The above Amendments and these Remarks are in reply to the Office Action mailed August 18, 2006.

Claims 60-67, 97, 106 and 108-114, 117 and 118 were pending in the Application prior to the outstanding Office Action. In the Office Action, the Examiner rejected claims 60-66, 97, 106, 108-110 and 112-114, 117 and 118, and objected to claims 67 and 111. Applicants respectfully request reconsideration of the rejections.

**I. REJECTION UNDER 35 U.S.C. §102(B) OVER *VOYDEVILLE GILLES* (FR. PAT. NO. FR2724554)  
*Claims 60, 61, 109, 112 and 114***

The Examiner rejected claims 60, 61, 109, 112 and 114 under 35 U.S.C. §102(b) over *Voydeville*. Applicants respectfully traverse the rejection.

In the Office Action, the Examiner writes that *Voydeville* discloses an implant comprising “a ‘shaft’ 2; a compressible cylindrical spacer 1 rotatably mounted on the ‘shaft’ 2.” However, nowhere does *Voydeville* disclose, or even teach or suggest, an implant comprising a “shaft disposed along a longitudinal axis...wherein the spacer is adapted to be inserted between the spinous processes in a direction along the longitudinal axis” as recited in claims 60 and 114.

**Reason 1) The artificial ligaments cannot be said to be disposed along a longitudinal axis**

In Response to Arguments filed June 8, 2006, the Examiner further writes that “a frame of reference for the ‘longitudinal axis’ has not been defined. Thus, there is no reason why the shaft cannot be said to be disposed along a longitudinal axis.” See OA, page 5. Applicants respectfully disagree. The longitudinal axis is given frame of reference by the language “wherein the spacer is adapted to be inserted between the spinous processes in a direction along the longitudinal axis” recited in claims 60 and 114. The shock absorbing component (1) of *Voydeville* cannot be inserted between the spinous processes in a direction along the longitudinal axis. If, for the sake of argument, the ligaments of *Voydeville* are taken as a “shaft”, the longitudinal axis is limited to the axis along which the ligaments are disposed. Because the ligaments are connected to the spinous processes, the longitudinal axis is interrupted by the spinous processes. There is no physical way of inserting the shock absorbing component along the longitudinal axis, because the direction of insertion is blocked by the spinous processes. The shock absorbing component must be inserted in a direction perpendicular to the longitudinal axis to be inserted between the spinous processes. For this reason alone, *Voydeville* cannot anticipate claims 60 and 114.

The claimed invention provides an advantage in that the spacer can be inserted between the adjacent spinous processes with less damage to delicate structures surrounding the surgical site than, for

example, the implant of *Voydeville*. Inserting the spacer between the spinous processes “in a direction along the longitudinal axis” allows the spacer rotatably mounted on the shaft to approach the surgical site between the adjacent spinous processes from the side, thereby avoiding altering the spinous processes themselves. The shaft need only penetrate the interspinal ligament between the spinous processes rather than penetrating one or both of the adjacent spinous processes and interspinal ligaments not associated with the surgical site.

As noted in the previous Response C, an arrangement as taught by *Voydeville* can be disadvantageous, as it requires the artificial ligaments to be arranged with additional effort than just the effort of inserting the block between the spinous processes. Requiring additional effort can increase a possibility of damaging structures, quite apart from the purposeful damage done to the structures when anchoring. For example, the arrangement of *Voydeville* may require over-distraction and positioning of ligaments protruding from the insertion side of the block to be threaded prior to insertion of the block itself.

#### **Reason 2) Artificial ligaments do not anticipate a shaft**

According to Merriam-Webster.com, a shaft is defined as follows (screenprint is included in Appendix A attached to this Response D):

**1 a (1) : the long handle of a spear or similar weapon (2) : SPEAR, LANCE b or plural shaves /'shavz/ : POLE; specifically : either of two long pieces of wood between which a horse is hitched to a vehicle c (1) : an arrow especially for a longbow (2) : the body or stem of an arrow extending from the nock to the head 2 : a sharply delineated beam of light shining through an opening 3 : something suggestive of the shaft of a spear or arrow especially in long slender cylindrical form: as a : the trunk of a tree b : the cylindrical pillar between the capital and the base c : the handle of a tool or instrument (as a golf club) d : a commonly cylindrical bar used to support rotating pieces or to transmit power or motion by rotation e : the stem or central axis of a feather f : the upright member of a cross especially below the arms g : the cylindrical part of a long bone between the enlarged ends h : a small architectural column (as at each side of a doorway) i : a column, obelisk, or other spire-shaped or columnar monument j : a vertical or inclined opening of uniform and limited cross section made for finding or mining ore, raising water, or ventilating underground workings (as in a cave) k : the part of a hair that is visible above the surface of the skin l : a vertical opening or passage through the floors of a building 4 a : a projectile thrown like a spear or shot like an arrow b : a scornful, satirical, or pithily critical remark or attack c : harsh or unfair treatment -- usually used with *the* <gave them the shaft>**

(Emphasis added)

The artificial ligaments (2) of *Voydeville* are not shaves and do not collectively constitute a shaft as defined by Merriam-Webster. The broadest definition of shaft is arguably entry 3. However, the artificial ligaments are not “suggestive of the shaft of a spear or arrow especially in long slender cylindrical form.” The artificial ligaments of *Voydeville* criss-cross one another and flexibly bend around the spinous ligaments, contrary to the shape of a “shaft of a spear or arrow” and contrary to a cylindrical form. Referring to MPEP 2143, “a claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). Nowhere does *Voydeville* teach or suggest “a spacer that is...mounted on said shaft” as recited in claims 60 and 114.

**Reason 3) The shock absorbing component is not rotatably mounted on the artificial ligaments.**

In Response to Arguments filed June 8, 2006, the Examiner further writes that “such a structure [as described in *Voydeville* ‘554] provides the inherent capability for the spacer to be able to be rotated about either or both ‘shafts’.” However, Applicants submit that *Voydeville* ‘554 still does not disclose “a spacer that is rotatably mounted on said shaft” as recited in claim 60. Applicants argue that even if the artificial ligaments passed through a single aperture, the arrangement of the artificial ligaments within the shock absorbing component would cause binding of the artificial ligaments, thereby frustrating rotation of the shock absorbing component. More specifically, the artificial ligaments criss-cross one another and bend around an edge of an opening to the shock absorbing component, frustrating rotation. The frictional contact caused by the artificial ligament being held in tension to maintain the shock absorbing component in position would also cause the artificial ligament to grip the shock absorbing component and further frustrate rotation.

In addition having the shock absorbing component (1) of the *Voydeville* ‘554 design would serve no purpose. Would the component (1) rotate, such rotation would not help with the insertion of the component (1) as shown by *Voydeville* ‘554 as no matter which position the component (1) is in the component has the same position relative the spinous processes. Accordingly, given this reason alone, *Voydeville* ‘554 does not contemplate rotation of the component (1).

**Reason 4) The original abstract and disclosure of *Voydeville* ‘554 does not recite a central aperture.**

In Response to Arguments filed June 8, 2006, the Examiner further writes that “the spacer 6 as seen in the *Voydeville* ‘634 U.S. patent is clearly not the same as the cylindrical spacer 1 as seen in the *Voydeville* ‘554 French patent. It is agreed that the ‘634 U.S. patent shows that the spacer 6 comprises two pairs of throughbores or “ducts” 7 and 8 for the passage of the artificial ligaments. However, it is clear

that the '554 French patent shows a different spacer than that of the '634 U.S. patent, comprising a cylindrical spacer 1 with a single, axial throughbore (see the English abstract attached to the '554 French patent that describes 'A cylindrical or similar shock-absorbing component (1) is located between two adjacent vertebral projections (E1,E2) to receive artificial ligaments which pass through its *central aperture*' (*italics emphasis added*)."

However, the Examiner recites the English abstract provided by [esp@cenet.com](mailto:esp@cenet.com). The abstract as published in [esp@cenet.com](mailto:esp@cenet.com) is not always a "word by word" translation of the abstract as filed or published. Especially where the source document is not English, an English abstract is produced by reading through the complete document, examining the claims and then a new abstract is written. It is submitted that the English abstract generated by [esp@cenet.com](mailto:esp@cenet.com) is not consistent with the application as filed and published. Applicants submit that the document cited by the Examiner *specifically* was not available at least prior to the priority date of claims 1 and 64. A search of website historical information by way of [www.waybackmachine.org](http://www.waybackmachine.org), reveals a first date of recorded availability of a [espacenet.com](http://espacenet.com) listing a "search" link as May 29, 2003, and a first date of recorded availability of a [espacenet.com](http://espacenet.com) link back to the European Patent Office as Nov. 9, 2000 . The page recorded reads, in part,

To promote the utilisation of this information and to widen the existing channels for the dissemination of patent information, the European Patent Office got together in summer 1998 with the member states of the European Patent Organisation and the European Commission to launch a new service called [esp@cenet](mailto:esp@cenet.com), which is easily accessible via the Internet.

"Summer 1998," the earliest identifiable date for which the English abstract describing a "central aperture" is not more than one year prior to the priority date of the present claims. It is asserted that the English abstract is therefore not prior art under 102(b).

The French abstract published on March 22, 1996 reads:

Ce dispositif comprend des moyens (3) et (4) aptes à être engagés et positionnés dans des trous formés dans l'épaisseur des apophyses épineuses (E1) (E2), lesdits moyens (3) et (4) étant conformés pour le passage d'organes de fixation (6) coopérant avec des agencements (5) que présentent les extrémités libres desdits ligaments (2).

A word-by-word English translation of the French abstract (and disclosure) was obtained, and is as follows:

This device comprises means (3) and (4) suitable to be inserted and positioned in holes made in the thickness of spinous apophyses (E1)(E2), said means (3) and (4) being shaped to allow the passage of attaching elements (6) working together with fittings (5) on the free ends of said ligaments (2).

As can be seen, there is no mention of a “central aperture” in the abstract. Further, there is no mention of a “central aperture” in the disclosure. Following a brief description of the figures, the disclosure reads, in part:

The block (1) is shaped for the passage of artificial ligaments (2) under specific conditions. More particularly, the block (1) is made of a semi-rigid material, in the form, for example, of a cylindrical body. The block (1) is pierced through for the passage of ligaments (2).

Preferably, the block is pierced for the cross-cross passage of two ligaments.

The disclosure does not disclose a “central aperture” through which both artificial ligaments pass, as described by the Examiner.

For these reasons, it is clear that the original abstract and application of *Voydeville* ‘554 does not disclose “a spacer that is rotatably mounted on said shaft” as recited in claim 60.

Because *Voydeville* ‘554 fails to disclose all of the features of claims 60 and 114, *Voydeville* ‘554 cannot anticipate claims 60 and 114 under 35 U.S.C. 102(b). Dependent claims have at least the features of the independent claims from which they depend. Therefore, claims 61, 109 and 112 (which depend from claim 60) cannot be anticipated by *Voydeville* ‘554 under 35 U.S.C. 102(b).

## **II. REJECTION UNDER 35 U.S.C. §103(A) OVER VOYDEVILLE**

### ***Claims 62-66, 97, 106, 108, 110, 113, 117 and 118***

The Examiner rejected claims 62-66, 97, 106, 108, 110, 113, 117 and 118 under 35 U.S.C. §103(a) as being unpatentable over *Voydeville*. Applicants respectfully traverse the rejection.

In the Office Action, the Examiner writes that “as previously discussed, *Voydeville* shows a device that basically the same as that recited in the above listed claims.” See OA, page 3. For the reasons given above in Section I, Applicants assert that *Voydeville* does not teach or suggest all of the features of claims 60, 61, 109, 112, 114, 117 and 118.

*Voydeville* fails to teach or suggest a “shaft disposed along a longitudinal axis...wherein the spacer is adapted to be inserted between the spinous processes in a direction along the longitudinal axis” as recited in claims 60, 114, 117 and 118. Since *Voydeville* fails to teach or suggest all of the features of claims 60, 114, 117 and 118, *Voydeville* cannot render claims 60, 114, 117 and 118 obvious under 35 U.S.C. § 103(a). Dependent claims have at least the features of the independent claims from which they depend; therefore, *Voydeville* cannot render claims 62-66, 97, 106, 108, 110 and 113 (which ultimately depend from claim 60) obvious under 35 U.S.C. § 103(a). Accordingly, Applicant respectfully requests withdrawal of the rejection.

## **III. ALLOWABLE SUBJECT MATTER**

Applicants appreciate the indication that claims 67 and 111 are objected to as being dependent upon a rejected base claim, but would be allowable if amended to include the limitations of the base claim and any intervening claims. However, given the argument above, Applicants respectfully assert that claims 67 and 111 depend from allowable claims. Applicants respectfully request withdrawal of the objection.

#### IV. CONCLUSION

In light of the above, it is respectfully submitted that all of the claims now pending in the subject patent application should be allowable, and a Notice of Allowance is requested. The Examiner is respectfully requested to telephone the undersigned if he can assist in any way in expediting issuance of a patent.

The Commissioner is authorized to charge any underpayment or credit any overpayment to Deposit Account No. 06-1325 for any matter in connection with this response, including any fee for extension of time, which may be required.

Respectfully submitted,

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By: /Michael L. Robbins/  
Michael L. Robbins  
Reg. No. 54,774

Customer No. 23910  
FLIESLER MEYER LLP  
650 California St., 14th Floor  
San Francisco, California 94108  
Telephone: (415) 362-3800